

Abstract of the Disclosure

5 A packet-based, hierarchical communication system,
arranged in a spanning tree configuration, is described in
which wired and wireless communication networks exhibiting
substantially different characteristics are employed in an
overall scheme to link portable or mobile computing devices.
The network accommodates real time voice transmission both
through dedicated, scheduled bandwidth and through a packet-
based routing within the confines and constraints of a data
10 network. Conversion and call processing circuitry is also
disclosed which enables access devices and personal
computers to adapt voice information between analog voice
stream and digital voice packet formats as proves necessary.
Routing pathways include wireless spanning tree networks,
15 wide area networks, telephone switching networks, internet,
etc., in a manner virtually transparent to the user. A
voice session and associate call setup simulates that of
conventional telephone switching network, providing well-
understood functionality common to any mobile, remote or
20 stationary terminal, phone, computer, etc.